## ABSTRACT

In an integrated optical lightguide device comprising a light-transmitting layer and an inclusion layer, an activable element is divided into several individual segments. Groups of segments thereby exhibit mutually different refractive index profiles, material profiles or mutually different degrees of activability as regards the refractive index profile, which have been effected by different, suitable methods. Thus, repeated adjustable or controllable transmission has resulted in an extremely sensitive waveguide system, for example for a sensor, a modulator, a spectrophotometer and the like.